

**FITCHBURG GAS AND ELECTRIC LIGHT COMPANY  
ELECTRIC DIVISION RATE REQUEST**

**DIRECT TESTIMONY OF MARK H. COLLIN**

**May 17, 2002**

**Massachusetts Department of Telecommunications and Energy**

**D.T.E. 02- \_\_**

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**I. INTRODUCTION**

Q. Please state your name and business address.

A. My name is Mark H. Collin. My business address is 6 Liberty Lane West, Hampton, New Hampshire, 03842-1720.

Q. What is your position and what are your responsibilities with FG&E?

A. I am the Treasurer and Secretary of Unitil Corporation ("Unitil") and the Treasurer of its principal subsidiaries, including Fitchburg Gas and Electric Light Company ("FG&E") and its New Hampshire utility affiliates Concord Electric Company ("CECo"), Exeter & Hampton Electric Company ("E&H") and Unitil Power Corp. I am also the Vice President of Finance for Unitil Service Corp. ("USC"), a subsidiary of Unitil, which provides centralized professional and administrative services to the Unitil System of Companies. My responsibilities are primarily in the areas of finance and utility regulation.

Q. Please describe your business and educational background.

A. I have 17 years of professional experience in the utility industry including an extensive financial management and regulatory background. I joined USC as the Manager of Rates in September 1988. Since that time I have held a number of progressive management positions at USC in the areas of finance, administration and regulation. I have been the Treasurer of Unitil's utility subsidiaries since 1993 and assumed my current

1 responsibilities as Treasurer and Secretary of Unitil Corporation in 1998. Prior to joining  
2 USC, I was employed as an economist and utility analyst in the Economics Department  
3 of the New Hampshire Public Utilities Commission ("NHPUC") for approximately 3 ½  
4 years. As a member of the NHPUC staff, I was primarily responsible for providing the  
5 NHPUC with economic and technical analyses on a broad range of regulatory, economic  
6 and financial matters in the gas and electric utility industries.

7  
8 I earned a Bachelor of Arts in Economics and a minor in Management from the State  
9 University of New York at Cortland in 1981 and a Master of Arts in Economics from the  
10 University of New Hampshire Whittemore School of Business and Economics in 1984.

11  
12 Q. Have you previously testified before the Department of Telecommunications and Energy  
13 ("the Department")?

14 A. Yes, I have. Most recently, I testified before the Department in the Department's  
15 investigation into FG&E's electric division rates, D.T.E. 99-118. I testified before the  
16 Department in D.T.E. 99-110, the Department's investigation into FG&E's last fully  
17 litigated reconciliation filing. I also testified before the Department in D.T.E. 97-115/98-  
18 120, the Department's investigation into FG&E's Restructuring Plan filed pursuant to St.  
19 1997, ch. 164 ("Electric Restructuring Act" or "Act"). I recently submitted testimony as  
20 a part of FG&E's 2002 electric rate reconciliation adjustment filing, that has been  
21 docketed D.T.E. 01-103.

1 In addition, I have appeared before the NHPUC, where I have testified on numerous  
2 occasions on behalf of the Unitil Companies.

3  
4 **II. PURPOSE OF TESTIMONY**

5 Q. Please describe the purpose of your testimony in this proceeding.

6 A. I will introduce FG&E's request, under M.G.L. c. 164, sec. 94, that the Department  
7 approve the tariffs filed this date for FG&E's Electric Division. My testimony and  
8 schedules develop and support the Electric Division revenue requirements analysis that is  
9 being presented to justify the requested increase in electric distribution base revenues.  
10 The Electric Division revenue requirements analysis is based on a test year 2001 rate  
11 base, revenues and expenses, proformed for known and measurable changes consistent  
12 with Department precedent.

13  
14 **III. SUMMARY OF TESTIMONY**

15 Q. What level of rate relief is sought for the Electric Division of FG&E?

16 A. FG&E seeks an increase in electric distribution base revenues for its Electric Division of  
17 \$3,206,768 which represents an increase of approximately 4.7% over FG&E's 2001 total  
18 annual electric operating revenues. As shown on Schedule MHC-2 (Electric), the  
19 revenue requirements has been separated into two functional components for FG&E's  
20 Electric Division: 1) Electric Distribution and 2) FERC-jurisdictional Internal  
21 Transmission. This jurisdictional allocation between the Distribution and Internal

1 Transmission functions is supported by the Allocated Cost of Service Study presented by  
2 Mr. James L. Harrison in this proceeding. FG&E is seeking the authorization from the  
3 Department to adjust only that portion of the total revenue requirements identified for  
4 Electric Distribution, over which the Department has jurisdiction.

5  
6 Q. Please define “electric distribution base revenues.”

7 A. Electric distribution base revenues are the revenues derived from the billing of the  
8 distribution rate components of FG&E’s Tariff for Electric Service, consisting of the  
9 customer, volumetric and demand charges.

10  
11 Q. Please describe FG&E’s Electric Division rate request filing.

12 A. The filing has at the start the new tariffs proposed to be approved by the Department  
13 incorporating the requested revenue requirement and the proposed electric distribution  
14 base rates that have been designed to recover the distribution revenue requirement. My  
15 testimony and schedules support and justify the requested total revenue requirement for  
16 the Electric Division. FG&E also presents the testimony of James L. Harrison of  
17 Management Applications Consulting (“MAC”), who conducted the fully Allocated Cost  
18 of Service Study (“ACSS”) used to determine the Electric Division’s cost of service for  
19 Distribution and the FERC-jurisdictional Internal Transmission functions, and used to  
20 establish the distribution revenue responsibility for each rate class. Mr. Harrison also  
21 conducted a Marginal Cost of Service Study (“MCSS”) for the Electric Division, which is

1 used primarily in designing electric base rates for each class to achieve the Department's  
2 long-standing rate design goals and objectives. The testimony of Dr. Samuel C.  
3 Hadaway of FINANCO is presented to support and justify the proposed allowed return  
4 on equity of 11.5% for the Electric Division. Mr. James H. Aikman, also of Management  
5 Applications Consulting, presents testimony supporting FG&E's depreciation study,  
6 which is used to establish the appropriate depreciation expense used in the determination  
7 of the cost of service for the Electric Division. Finally, the Electric Division tariffs, rate  
8 design and rate impact analysis are described in and supported by the testimony of Karen  
9 M. Asbury, Director of Regulatory Services for USC.

#### 11 **IV. BACKGROUND**

##### 12 **A. THE UNITIL SYSTEM OF COMPANIES**

13 Q. Please describe the Unitil System of Companies.

14 A. Unitil Corporation ("Unitil") was formed as a public utility holding company in 1984  
15 through a merger of Concord Electric Company ("CECo") and Exeter & Hampton  
16 Electric Company ("E&H"), which became wholly-owned utility operating subsidiaries  
17 of Unitil at the time of the merger. CECo and E&H are both New Hampshire electric  
18 distribution utilities and provide electric service to the seacoast and capitol city regions in  
19 New Hampshire to approximately 71,000 customers. FG&E was merged into Unitil in  
20 1992, at which time it also became a wholly-owned utility operating subsidiary of Unitil.  
21 Through these three utility operating subsidiaries, Unitil conducts its principal business,



1 which is the retail sale and distribution of electricity in New Hampshire and the retail sale  
2 and distribution of electricity and gas in Massachusetts.

3  
4 Q. Please broadly describe FG&E's Gas and Electric Divisions.

5 A. FG&E was incorporated as a gas company in Massachusetts in 1852 and is the only  
6 combined gas and electric distribution company currently operating in the  
7 Commonwealth. In total, FG&E provides retail electric and natural gas distribution  
8 services to approximately 42,000 customers in a 170-square-mile service area in north-  
9 central Massachusetts, an area with an estimated population of 90,000. In particular to  
10 the Electric Division, FG&E provides electric distribution service to 27,000 customers in  
11 the communities of Fitchburg, Townsend, Lunenburg and Ashby.

12  
13 Q. Are the service territories of Unitil's three distribution utilities connected?

14 A. No, they are not geographically connected to one another. However, Unitil's three  
15 distribution utilities operate on a centralized and integrated basis as if they were a single  
16 entity in many areas of their utility business. Unitil has structured its utility business  
17 operations in this way in order to achieve system-wide efficiencies through economies of  
18 scale, elimination of duplicate functions and best business practices. When Unitil was  
19 formed, it also created USC as a centralized, shared services company. Today, USC  
20 provides a wide variety of shared utility services to CEC Co, E&H and FG&E on an at cost  
21 basis. The shared services provided by USC relate to six major functional areas, that

1 include: 1) Corporate and Administration; 2) Customer Services; 3) Energy Service; 4)  
2 Engineering and Operations; 5) Regulatory, Finance and Accounting; and, 6)  
3 Technology. Prior to the formation of Unitil in 1984, each of the three retail operating  
4 utilities performed most of these functions on a stand-alone basis, although there was an  
5 informal agreement between them that allowed some sharing of services in a limited  
6 number of areas.

7  
8 Q. Are there other subsidiaries in the Unitil System?

9 A. Yes. In addition to USC, other companies owned by Unitil are: (a) Unitil Power Corp., a  
10 FERC-regulated wholesale power company created solely to meet the power needs of the  
11 New Hampshire utilities; (b) Unitil Resources, an electric and gas energy brokering  
12 company that currently conducts its business throughout the Northeast, but outside the  
13 service territories of its affiliated utility companies; and (c) Unitil Realty Corp., that  
14 manages the real property held by the System.

15  
16 **B. RATE CASE HISTORY**

17 Q. When did FG&E last seek a base rate increase for its Electric Division?

18 A. FG&E last sought a base rate increase for its Electric Division 17 years ago in 1984  
19 (D.P.U. 84-145). I should note that, in other rate-related activity, FG&E voluntarily  
20 adjusted its rates downward in 1993 (D.P.U. 93-165), and the Department also imposed a  
21 rate reduction on FG&E in 2001 (D.T.E. 99-118).

1 Q. Why is it necessary to file a base rate case for the Electric Division at this time?

2 A. FG&E's current electric distribution base rate levels are not sufficient to allow FG&E the  
3 opportunity to recover the distribution cost to serve electric customers and earn its  
4 allowed return on the capital invested to provide electric distribution service to  
5 customers. In particular, the revenue requirements developed for the Electric Division  
6 based on a 2001 test year presented in this proceeding reflects a significant decrease in  
7 FG&E's distribution base revenue since its last rate review (D.T.E. 99-118). This  
8 reduction in distribution base revenue reflects the mandated decrease in overall base rates  
9 of over 8.3% implemented in 2001, coupled with the impact of a significant drop in  
10 electric sales, which have declined 8.8% since 1999. FG&E's revenue requirements  
11 analysis in this proceeding is also impacted by FG&E's proposal to increase its electric  
12 depreciation accrual rates based on an updated depreciation study.

13  
14 In addition, since its last rate proceeding, the cost incurred by FG&E to accommodate the  
15 unbundling of its electric services and offer customer choice, supplier access to its  
16 distribution system and provide standard offer and default service are now included for  
17 recovery in base distribution rates. FG&E had previously sought recovery of these types  
18 of costs through the energy-related components of its rates (i.e. transition charge,  
19 standard offer service), but was instructed by the Department to seek recovery of these  
20 types of costs in its next base distribution rate proceeding. FG&E's electric restructuring  
21 process has also required new investments and expenses related to customer-information

1 systems, supplier interfaces and increased regulatory compliance activities. The costs  
2 required to support these changes in the Electric Division's business operations, along  
3 with customary inflationary pressures on FG&E's other operating costs, have all  
4 contributed to FG&E's need to seek rate relief at this time.

5  
6 Q. Are there any additional reasons why it is necessary for FG&E to file a base rate case for  
7 its Electric Division at this time?

8 A. Yes, there are. The Electric Division's base rates must be examined in order to establish  
9 appropriate cast-off rates for FG&E's Electric PBR. Cast-off rates are a necessary  
10 component of a PBR to ensure that the rates established at the inception of the PBR are  
11 reflective of the costs of providing service at the same time that the PBR commences.

12  
13 Q. Has FG&E filed a PBR Plan for its Electric Division?

14 A. Yes. FG&E filed with the Department a PBR Plan for the Electric Division on April 16,  
15 2002.

16  
17 **V. SUMMARY OF REVENUE REQUIREMENTS**

18 **A. METHOD OF ANALYSIS**

19 Q. What approach did you use to perform the revenue requirements analysis?

20 A. To perform my revenue requirements analysis, I determined the Electric Division's cost-  
21 to-serve, using a test year approach as proformed and adjusted for known and measurable

1 changes. I then compared the Electric Division's cost-to-serve to its test year revenues  
2 (as adjusted) to derive a revenue deficiency, and correspondingly the revenue  
3 requirements that FG&E would have to receive on a test year basis to make up this  
4 deficiency. This approach, consistent with Department precedent, contends that a  
5 utility's revenues should allow it to recover the overall reasonable cost of providing  
6 service to its customers and provide the opportunity for the utility to earn a fair rate of  
7 return on the investment it has devoted to such service.

8  
9 Q. What guidance did FG&E use to determine its rate base, operating revenues and  
10 operating expenses for the purpose of this proceeding?

11 A. FG&E used historical test year data in accordance with Department precedent to  
12 determine its rate base, operating revenue and operating expenses. The test year data  
13 were pro formed for traditional known and measurable changes to the Electric Division's  
14 revenue requirements to determine normalized revenues and expenses for setting rates.

15  
16 Q. What was the test year chosen by FG&E?

17 A. The test year is the twelve-month period ending December 31, 2001.  
18

19 Q. What standards did you employ to determine the pro forma adjustments to test year data?

20 A. I employed two standards. First, consistent with Department precedent, all adjustments  
21 to the test year are based upon either known and measurable changes in revenues and

1 expenses, or upon changes that will become known and measurable during the course of  
2 the proceeding. Second, where appropriate based on the known and measurable standard  
3 and Department precedent, some expense adjustments reflect changes that will be  
4 experienced in the rate year.

5  
6 Q. What is a “rate year?”

7 A. The term “rate year” describes the first twelve months during which the rates established  
8 in this proceeding will be in effect, or in other words, the period December 1, 2002  
9 through November 30, 2003.

10  
11 **B. PRIOR DIRECTIVES**

12 Q. Did the Department issue directives for FG&E to comply with as a result of D.T.E. 99-  
13 118 or other orders?

14 A. Yes. In D.T.E. 99-118, the Department stated that it would examine whether FG&E was  
15 prudent in investing in a transformer placed in service originally to serve the now-defunct  
16 Princeton Paper Company. I will address the reasonableness of FG&E’s actions when  
17 discussing FG&E’s rate base below. Further, in D. T. E. 99-118, FG&E was directed to  
18 conduct a lead-lag study for non-fuel working capital requirements in its next Section 94  
19 rate proceeding (either gas or electric) or undertake a reasonable, cost effective  
20 alternative in order to address the validity of the 45 day convention. I will address this  
21 when discussing FG&E's working capital allowance. In addition, in D.T.E. 98-51 (

1 FG&E's last base rate proceeding for its Gas Division), the Department expressed  
2 concerns over its ability to review and investigate the nature of service company charges  
3 to FG&E and required that FG&E audit test year amounts of allocated charges. Such an  
4 audit has been completed. In its final order in D.T.E. 98-51, the Department also asked  
5 for substantive support in areas such as rate case expense, legal fees, and audit expenses.  
6 Since these issues transgress rate cases, I have addressed all those issues in this  
7 testimony.

8  
9 **C. SUMMARY OF RESULTS**

10 Q. Please summarize the results of your revenue requirements analysis for FG&E's Electric  
11 Division.

12 A. As shown on Schedule MHC – 2 (Electric), comparing the adjusted cost of service to the  
13 adjusted operating revenues, derives a distribution revenue deficiency for the test year of  
14 \$3,206,768 based on an overall rate of return of 9.09%, and known and measurable  
15 adjustments to test year revenues, expenses and rate base.

16  
17 Q. Have you provided schedules that summarize the 2001 per books information and data  
18 that were used to develop your Electric Division revenue requirements analysis?

19 A. Yes, I have. Schedule MHC – 1 (Electric), page 1 of 2, provides the 2001 per books  
20 statement of pre-tax utility operating income for the total company and separately for  
21 each of FG&E's operating divisions: the Electric Division and the Gas Division.

1 Schedule MHC – 1 (Electric), page 2 of 2, further breaks down the per books information  
2 for the Electric Division into those utility functions included in my revenue requirements  
3 analysis – i.e. Distribution and FERC jurisdictional Internal Transmission, and into those  
4 that have been removed and excluded for the purposes of my analysis – i.e.. the Seabrook  
5 Amortization Surcharge and various Electric Rate Reconciliation Mechanisms. The per  
6 books information shown on Schedule MHC – 1 (Electric), page 2 of 2, that is labeled  
7 “Revenue Requirements Analysis, Total Per Books,” is the starting point from which I  
8 make pro forma adjustments and changes in accordance with Department ratemaking  
9 precedent to determine the revenue deficiency for the Electric Division.

10  
11 Q. Does FG&E’s per books information link to other information available to the  
12 Department, for instance the Department’s Annual Report for FG&E?

13 A. Yes, it does. The 2001 per books information shown in Schedule MHC – 1 (Electric) is  
14 consistent with the regulatory and financial reports that FG&E has already filed with the  
15 Department and other regulatory agencies for the year 2001 on a total-company and  
16 operating division basis. Moreover, during the course of this proceeding, this  
17 information is intended to assist all parties in their understanding and review of the  
18 “unbundled” revenue requirements for the Electric Division.

19  
20 Q. Have you provided additional schedules that summarize the results of your revenue  
21 requirements analysis and support the change requested?



1 A. Yes, I have. Schedule MHC – 2 (Electric) consists of the computation of the total revenue  
2 deficiency of \$3,655,806 for the Electric Division, which is further broken down in the  
3 revenue deficiency for the Distribution function of \$3,206,768 and for the FERC-  
4 jurisdictional Internal Transmission function of \$449,038. Schedules MHC – 3 (Electric)  
5 through MHC - 7 (Electric) provide basic computations and support for the amounts  
6 summarized on Schedule MHC – 2 (Electric), including test year revenues, expenses and  
7 rate base. Schedules MHC – 8 (Electric) through MHC - 12 (Electric) consist of detailed  
8 analysis for amounts summarized on Schedules MHC – 2 (Electric) through MHC - 7  
9 (Electric).

10  
11 Q. Are there any other special considerations that the Department should be aware of?

12 A. Yes. Because of the Electric Restructuring Act, FG&E operates under a legislatively-  
13 imposed rate cap that is linked to 1997 bundled electric prices. Increasing FG&E's  
14 annual distribution revenues will have a limited effect on customer's bills, because  
15 FG&E must reduce some other component of its bill to stay within the parameters set by  
16 the legislature. Accordingly, the Transition Charge has been reduced to accommodate  
17 the proposed distribution revenue changes beneath the rate cap.

18  
19 **VI. REVENUE REQUIREMENT FOR ELECTRIC DIVISION**

20 **A. RATE BASE**

21 Q. In computing rate base, has FG&E complied with Department precedent?

1 A. Yes it has. In accordance with Department standards, FG&E has used actual per books  
2 amounts as at the end of the test year for Utility Plant in Service, Reserve for  
3 Depreciation and Amortization, Reserve for Deferred Income Taxes and Customer  
4 Deposits. All included plant is used and useful in the service of customers. The level of  
5 Inventories included in rate base is based on the average of the 13 month-end balances of  
6 the test year.

7  
8 Q. Have you made pro forma adjustments to test year rate base?

9 A. In limited fashion only as described in the next section. Otherwise the rate base level for  
10 the Electric Division relies exactly on the per books records for capital and plant  
11 additions.

12  
13 1. Utility Plant in Service, Plant Additions and Capital Improvements

14 Q. Since FG&E's last rate review (D.T.E. 99-118), has FG&E added plant to its Electric  
15 Division operations?

16 A. Yes. Since 1999, Total Electric Utility Plant in Service has grown to \$69,280,223 as  
17 shown on Schedule MHC-4 (Electric).

18  
19 Q. What are the reasons for this growth in Distribution Utility Plant since 1999?

20 A. Engineering and operations personnel engaged in, in addition to routine replacements and  
21 upgrades, a series of evaluative projects to determine areas of capacity constraint and to

1 predict problem areas in the electrical system to ward off outages resulting from  
2 equipment failures. These concentrated review efforts determined that many upgrades  
3 and replacements were necessary in order to maintain and protect the integrity and  
4 reliability of the system understandably expected by our customers and regulators. Each  
5 of the capital expenditures for the Electric Division for the years 2000 and 2001 in excess  
6 of \$50,000 have been provided in Exhibit FGE-MHC - 3 (Electric).

7  
8 Q. Are all the system improvements made currently in service to ratepayers and will they be  
9 during the rate year?

10 A. Yes. Schedule MHC - 8 (Electric) shows the detail of Utility Plant in Service component  
11 of rate base, with balances of plant accounts as at December 31, 2001, the end of the test  
12 year. Total Electric Utility Plant has been reduced by the asset balances related to other  
13 power generation, stranded assets/jointly-owned units and the Electric Water Heater  
14 Rental Program, and increased by the portion of Common Plant allocated to the Electric  
15 Division.

16 Q. In D.T.E. 99-118, the Department indicated that it would review whether FG&E was  
17 prudent in adding a transformer at Princeton Road to serve a customer, Princeton Paper,  
18 that became bankrupt and ceased taking service in 2001. I notice that the Electric  
19 Division upgraded both Princeton Road and Sawyer Passway substations. Would you  
20 like to justify these construction projects?

21 A. Yes, I would.

1                   a.       Princeton Road Substation

2    Q.     Please provide a background of the Princeton Paper facility.

3    A.     Princeton Paper was the last incarnation of the paper recycling company known as  
4           Fitchburg Operating, L.L.C. (“FOLLC”).<sup>1</sup> At its peak, Princeton Paper contributed 29  
5           percent of the base distribution operating revenues for the Electric Division derived from  
6           FG&E’s industrial class of customers during 1999, or in other words, over 8 percent of  
7           the total base distribution operating revenues for the Electric Division in 1999. In 2000,  
8           Princeton Paper contributed 13 percent of the base distribution operating revenues for the  
9           Electric Division derived from FG&E’s industrial class of customers, or approximately 3  
10          percent of FG&E’s total base distribution operating revenues for the Electric Division. In  
11          the spring of 2000, Princeton Paper declared bankruptcy and closed its doors. By 2001,  
12          its assets had been sold off at auction and a new tenant occupied the facilities.

13   Q.     Please describe the Princeton Road Substation project.

14   A.     The Princeton Road Substation was originally designed for two purposes. Because a  
15          portion of the substation, built in 1996, was dedicated in general to FG&E customers, the  
16          substation fed two FG&E circuits, a design that had been planned from the start. The  
17          remainder of the substation was, in fact, intended to be dedicated to  
18          FOLLC/MRALP/Princeton Paper.

19  

---

<sup>1</sup>       Lest there be confusion, Fitchburg Operating, L.L.C. was named such presumably because it was located in Fitchburg; the business had no connection to Fitchburg Gas and Electric Light Company.

1 Q. Is the substation still used and useful in the service of FG&E's ratepayers, now that  
2 Princeton Paper is gone?

3 A. The Princeton Road Substation is used and useful in the service of ratepayers. Even  
4 before Princeton Paper declared bankruptcy, FG&E's engineers were seeking cost-  
5 effective ways of increasing capacity in the area. Overall, demand had been growing on  
6 that part of FG&E's electric distribution system and preliminary plans called for an  
7 additional substation in the area. Even before the Princeton Paper load ceased, engineers  
8 were conducting extensive analyses to determine what transformer capability was  
9 required between the Princeton Road Substation and the Sawyer Passway Substation,  
10 which I describe below. Then Princeton Paper declared the termination of its contract.

11  
12 Q. Did that leave FG&E with an unused facility?

13 A. Absolutely not. FG&E's engineers moved load from constrained areas on the FG&E  
14 System to the Princeton Road transformer, and in this way avoided needed upgrades on  
15 other parts of the system. The capacity at Princeton Road was used almost immediately  
16 to alleviate capacity constraints and system deficiencies.

17  
18 Q. Who does the facility serve with electric distribution service?

19 A. In the manner in which the substation is configured, the Princeton Road substation feeds  
20 the demand for industrial customers along Princeton Road, including Newark America.

1 It also serves the Montachusett Industrial Park, The 231 Industrial Park, and many other  
2 industrial, commercial and residential customers.  
3

4 Q. Is the load carried at this substation significant?

5 A. Yes, it is. The current load on the Princeton Road Substation is currently in excess of 20  
6 MVA because of the rerouting of circuits. This is more than 20 percent of all of FG&E's  
7 load. In addition, FG&E used a transformer that was not needed at Princeton Road to  
8 provide rapid response to a transformer failure at West Townsend Substation. FG&E was  
9 able to move a smaller transformer that had previously served at Princeton Road to the  
10 West Townsend location, saving the cost of a new unit. Response to the equipment  
11 failure was rapid and cost effective. All excess capacity momentarily on the system at the  
12 closing of Princeton Paper and the opening of Newark is used up, with more distribution  
13 load on that substation than on any other distribution substation in the FG&E system.  
14 Finally, this substation backs up River Street Substation where there was a failure last  
15 year and it is feeding part of the River Street customers, providing tie capability between  
16 the two stations.  
17

18 b. Sawyer Passway Substation  
19

20 Q. Please describe why a new substation was required at Sawyer Passway.

1 A. The original substation at Sawyer Passway, that dated from the 1940's, was designed to  
2 interconnect generation to the system, not to serve as a distribution center. Over time,  
3 because of its location relative to the downtown area of Fitchburg, the substation evolved  
4 into a major distribution load center. The system connections and configurations were  
5 not suited to distribution service, as they were configured in a manner that limited  
6 protections for overcurrent and lightning strikes. In addition, because of the age of the  
7 facility, voltage could only be adjusted manually, with limited capability.

8  
9 Q. Was the substation scheduled for replacement?

10 A. Yes. Its distribution operations limitations were obvious, and in addition, because of the  
11 prior use as a generating station, the building was contaminated with asbestos, making it  
12 dangerous for personnel to work in the facility. As the Department knows, asbestos was  
13 widely and routinely used by utilities in generating stations for fire protection before its  
14 hazards to human health were scientifically established. Replacement of the facility  
15 became even more critical when a serious fire occurred on the site. Because this  
16 equipment services downtown Fitchburg, it was necessary to ensure that the replacement  
17 facility could maintain reliable voltage levels, be properly grounded, protect against  
18 overcurrent and lightning strikes, and provide for better voltage adjustment.

19  
20 Q. Is this substation in service now?

1 A. Yes, it is, containing two 12/16/20 MVA LTC transformers, and it provides a backup to  
2 the Summer Street substation. It stands just in front of the former generating station  
3 building, making use of the same site.

4  
5 2. Reserve for Depreciation and Amortization

6 Q. Please describe the Reserve for Depreciation and Amortization component of the Electric  
7 Division's rate base.

8 A. Schedule MHC - 9 (Electric) shows the detail of Electric Division's Reserve for  
9 Depreciation and Amortization component of rate base, with balances in reserve of  
10 \$19,882,060 as at December 31, 2001, the end of the test year. Total Depreciation and  
11 Amortization Reserves have been reduced by the reserve balances related to other power  
12 generation, stranded assets/jointly-owned units and the Rental Program, and increased by  
13 the portion of reserves balances related to Common Plant allocated to the Electric  
14 Division.

15  
16 3. Rate Base Additions

17 a. Materials and Supplies Inventory

18 Q. Please describe Schedule MHC - 10 (Electric).

19 A. Schedule MHC - 10 (Electric) shows the detail of the thirteen-month average of  
20 Inventories component of rate base, which is \$771,667 and consists of various materials  
21 and supplies used in the transmission/distribution operations. Total Electric Inventories



1 have been reduced by the amounts remaining in inventories during part of the test year  
2 related to power production, and by amounts related to the Rental Program.  
3

4 b. Allowance for Cash Working Capital

5 Q. Has a cash working capital allowance been proposed in the Electric Division rate base?

6 A. Yes.  
7

8 Q. What amount of cash working capital does FG&E propose to include in rate base?

9 A. FG&E proposes to include \$2,581,730 of cash working capital in rate base. The  
10 Electric Division's cash working capital allowance is detailed on Schedule MHC-4-1  
11 (Electric) and shown as a component of rate base on Schedule MHC – 4 (Electric).  
12

13 Q. What is cash working capital?

14 A. Cash working capital is the amount of capital expended and required by FG&E to  
15 fund its day-to-day operations. Cash working capital represents funds expended by  
16 FG&E to provide service prior to the payment for such service by FG&E's customers.  
17 Pursuant to Department precedent, cash working capital is an addition to FG&E's rate  
18 base.  
19

20 Q. What are the components of cash working capital?

1 A. The cash working capital allowance initially consists of two components – (1)  
2 Purchased Power, and (2) Other Operations and Maintenance expense (“Other  
3 O&M”).  
4

5 Q. How did FG&E determine its cash working capital levels for Purchased Power and  
6 Other O&M?

7 A. For Purchased Power Cash Working Capital, FG&E conducted a purchased power  
8 lead-lag study ("Lead/Lag Study" or "Study") (Exhibit FGE- MHC-4 (Electric)).  
9 Other O&M Cash Working Capital, FG&E used the 45-day convention.  
10

11 i. Purchased Power Cash Working Capital

12 Q. What Electric Division expense is Purchased Power Cash Working Capital intended  
13 to address?

14 A. Purchased Power Cash Working Capital provides cash working capital for expenses  
15 paid by FG&E on customers' behalf to FG&E's Default Service energy suppliers, its  
16 Standard Offer Service energy suppliers, and to the providers of External  
17 Transmission Services.  
18

19 Q. Why is it appropriate to include cash working capital Purchased Power in the working  
20 capital of the Electric Division's distribution function?

1 A. It is appropriate because the Electric Division continues to be the provider of last  
2 resort for customers' energy supply requirements. Post-restructuring, the Electric  
3 Division is responsible for making payments for energy supply and for billing,  
4 collecting, and financing such costs on behalf of customers that take Default Service,  
5 or the Standard Offer Service . Accordingly, the working capital requirement for  
6 purchased power is appropriately included in the working capital allowance  
7 component of the Electric Division's distribution rate base.

8  
9 Q. Does the Electric Division recover cash working capital related to these purchased  
10 power obligations from any other rate mechanism?

11 A. No. There is no recovery mechanism for the required working capital of purchased  
12 power in any of FG&E's other unbundled or reconciling rate mechanisms.

13  
14 Q. Is the payment of power supply, billing and collecting the only type of expense  
15 included under the Purchased Power Cash Working Capital?

16 A. No. Similarly, the Electric Division must ensure that customers receiving supply take  
17 and pay for External Transmission service to get the energy to the local distribution  
18 grid. Therefore, paying for External Transmission is an Electric Division distribution  
19 function responsibility.

20

1 Q. Does the Electric Division receive recovery for the working capital employed in  
2 obtaining External Transmission service in its reconciling External Transmission  
3 Charge mechanism?

4 A. No. The cost of working capital for external transmission service is not recovered in  
5 the Electric Division's External Transmission Charge.  
6

7 Q. How was the Lead/Lag Study conducted?

8 A. FG&E based the Lead-Lag Study upon data for the twelve months ended December  
9 31, 2001, adjusted for known and measurable changes. The revenue lag and expense  
10 lead days resulting from the Lead/Lag Study have been applied to adjusted test year  
11 purchased power amounts to determine the electric distribution cash working capital  
12 requirements.  
13

14 Q. Please define the terms "lag days" and "lead days."

15 A. Lag days are computed between FG&E and its customers. Lag days are the number  
16 of days between delivery of a service to FG&E's customers and the receipt by FG&E  
17 of payment and availability of funds for the service (revenue lag). Lead days are  
18 computed as between FG&E and its vendors. They are the number of days between  
19 the average delivery date energy is purchased by FG&E or services are rendered by a  
20 vendor and the wire/Automated Clearing House (ACH) payment or depository bank  
21 clearing date (expense lead).

1 Q. How is revenue lag computed?

2 A. Revenue lag is computed in days, consisting of four time components: (1) from  
3 receipt of electric service to meter reading; (2) from meter reading to billing; (3) from  
4 billing to collection; and (4) from collection to receipt of available funds. The sum of  
5 the days associated with these four lag components is the total revenue lag  
6 experienced by the Electric Division. Schedule MHC – 4, pages 3 through 21.

7  
8 Q. What lag does the Lead/Lag Study reveal for the component "receipt of electric  
9 service to meter reading?"

10 A. The Lead/Lag Study reveals 15.21 days. This lag was obtained by dividing the  
11 number of days in the test year (365 days) by 24 to determine the average monthly  
12 service period.

13  
14 Q. What lag does the Lead/Lag Study reveal for the component "meter reading to  
15 billing?"

16 A. The billing lag is 2.43 days. This lag determines the time required to process the  
17 meter reading data and to send out customer bills based on the collected data. This  
18 billing lag is influenced by factors such as contract terms, billing investigation, and  
19 the nature of the billing.

20  
21 Q. What lag does the Study reveal for the component "billing to collection?"

1 A. The lag is 38.61 days. This lag reflects the time delay between the mailing of  
2 customer bills and the receipt of the billed revenues from customers. Collection lag  
3 in individual circumstances is influenced by contract terms, postal delivery delays,  
4 customer inquiries, billing disputes, and other factors.

5  
6 Q. What lag does the Study reveal for the component "collection to receipt of available  
7 funds?"

8 A. The lag is 2 days. This check-float period is the lag that takes place during the period  
9 from when payment is received from customers to the time such funds clear the bank  
10 and are available for use by the company.

11  
12 Q. Is the total revenue lag computed from these separate lag calculations?

13 A. Yes. The total revenue lag of 58.25 days is computed by adding the number of days  
14 associated with each of the four revenue lag components. This total number of lag  
15 days represents the amount of time between the recorded delivery of service to  
16 customers and the receipt of the related revenues from customers.

17  
18 Q. Now let's turn to the lead periods in the Lead/Lag Study. In determining the expense  
19 lead period, how were the weighted days lag in payment of purchased power costs  
20 determined?

1 A. First the monthly expense lead for each vendor is determined by aggregating (1) the  
2 average days in the month that the energy or service is received, and (2) the additional  
3 billing period up to the wire/ACH payment or bank clearing date. Then the aggregate  
4 lead days are weighted as described in the Lead/Lag Study. Exhibit FGE-MHC - 4  
5 (Electric), page 4 of 21.

6  
7 Q. How is the total Purchased Power Lag determined?

8 A. The lag in payment of purchased power costs of 40.51 is subtracted from the lag in  
9 receipt of revenue of 58.25 days to produce the total purchased power lag of 17.74  
10 days. Exhibit FGE-MHC - 4 (Electric), page 5 of 21.

11  
12 ii. Other O&M Cash Working Capital

13 Q. What is Other O&M Cash Working Capital?

14 A. The Other O&M Cash Working Capital component is composed of O&M expense  
15 (predominantly payroll, employee and retiree benefits). These are types of expenses  
16 that FG&E pays to underwrite the business in service to customers before it receives  
17 payment from customers for that service. It is appropriate for FG&E to recover its  
18 carrying cost for this service.

19  
20 Q. Is the manner in which Other O&M Cash Working Capital is calculated consistent  
21 with the computation provided in D.T.E. 99-118?

1 A. Yes. Further, FG&E has consistently calculated Other O&M Cash Working Capital  
2 post-restructuring, as it did before its operations were restructured for competition.  
3

4 Q Why is a 45-day lag appropriate for computing the Other O&M Cash Working  
5 Capital requirements?

6 A While the Department stated in D.T.E. 98-51 that utilities were encouraged to  
7 consider and offer cost-effective alternatives that produce lower working capital  
8 requirements than the 45-day convention, the Department stated that it did not want  
9 expensive and unnecessary lead-lag studies submitted in rate case proceedings. For  
10 this proceeding, FG&E has determined that a lead-lag study would not be cost  
11 justified.  
12

13 Q. Did FG&E determine the cost of conducting a full lead-lag study as part of its  
14 preparation for this proceeding?

15 A. Yes. FG&E issued RFP's to a number of firms to complete both gas and electric  
16 O&M lead-lag studies. In order to drive the highest level of efficiencies in the study,  
17 FG&E's RFP specified a lead-lag to be conducted for both the gas and electric  
18 divisions, given the simultaneous rate case proceedings.  
19

20 Q. What was the result of the RFP?



1 A. The bids revealed that conducting a lead-lag study would cost approximately  
2 \$200,000.  
3

4 Q. Does the cost of performing the study make it an efficient alternative to use of the 45  
5 day convention?

6 A. No, it does not. FG&E has determined that a full O&M lead/lag study vs. use of the  
7 45-day convention would not provide benefits to customers that justify its cost.  
8

9 Q. Is FG&E opposed to submitting to an O&M lead-lag study?

10 A. No. However, FG&E believes that undertaking such a study is not cost effective for  
11 customers. Should the Department feel that such a study would assist it in its  
12 determination, FG&E can recruit an expert and the study can begin at anytime while  
13 the rate cases are pending. According to the information acquired during the RFP  
14 process, completing a full lead-lag study including Other O&M will take six weeks to  
15 complete.

16 Q. Would you summarize the Electric Division testimony regarding Cash Working  
17 Capital?

18 A. Yes. The cash working capital provision produced by the (1) Purchased Power  
19 Lead/Lag Study (Exhibit FGE-MHC - 4 (Electric)), and (2) utilization of the 45-day  
20 convention for Other O&M expenses provides the most economic methodologies for  
21 providing a fair and reasonable calculation of the Electric Division's cash working

1 capital requirements and have been used in the determining the cost of service for my  
2 distribution revenue requirements analysis. As a result, the Purchased Power  
3 Lead/Lag Study and Other O&M computation support the cash working capital  
4 component proposed for inclusion in distribution rate base of \$1,617,250 and  
5 \$964,480, respectively, which aggregate to a total cash working capital amount of  
6 \$2,581,730. See Schedule MHC - 4-1 (Electric).

7  
8 4. Rate Base Deductions

9 a. Reserve for Deferred Taxes

10 Q. Have you computed a level of the Reserve for Deferred Income Taxes that reduces the  
11 Electric Division's per books level of rate base, in accordance with Department  
12 precedent?

13 A. Schedule MHC - 11 (Electric) shows the detail of Reserve for Deferred Taxes component  
14 of rate base, including the FAS 109 regulatory assets and liabilities, with balances of  
15 \$7,507,068 as at December 31, 2001, the end of the test year. Total Electric Reserves  
16 have been reduced by the reserve balances related to Generation.

17  
18 Q. Have you made an adjustment on this schedule?

19 A. Yes. I have adjusted the FAS 109 regulatory assets and liabilities, reducing the test year-  
20 end balances to proform the effect of amortization for the months of November and  
21 December of the test year. Inadvertently, FG&E had not commenced amortization on the

1 accounting records as it had been authorized to do in D.T.E. 99-118. The adjustment  
2 increases the reserve for deferred income taxes in rate base by \$43,485.

3  
4 b. Customer Deposits

5 Q. What is the final item being deducted from rate base?

6 A. The final item is a deduction for Customer Deposits as of December 31, 2001, the end of  
7 the test year. The amount of the deduction is \$179,726.

8  
9 **B. OPERATING REVENUE**

10 Q. Please explain the adjustments to Operating Revenues.

11 A. I have made two adjustments to Operating Revenues of electric transmission and  
12 distribution operations, related to: 1) annualization of the rate decrease effective October  
13 18, 2001 in D.T.E. 99-118, and 2) removal of Water Heater Rental Program ("Rental  
14 Program") revenues from the test year.

15 Q. What are the effects of these adjustments?

16 A. These adjustments reduce test year Operating Revenues for the Electric Division.  
17

18 1. Rate Decrease from D.T.E. 99-118

19 Q. What was the proceeding in D.T.E. 99-118?

20 A. D.T.E. 99-118 resulted from a complaint by the Attorney General relative to FG&E's  
21 earnings. The Attorney General claimed that FG&E was overearning relative to a

1 claimed rate of return by more than \$3 million. Ultimately the Department determined  
2 that in order to establish just and reasonable rates, FG&E's revenues should be reduced  
3 by \$1.17 million. The Department ordered FG&E to reduce rates annually by this  
4 amount. The order was issued on October 18, 2001.

5  
6 Q. Why have you adjusted test year 2001 Operating Revenues?

7 A. This proceeding will establish cast-off rates for FG&E's proposed PBR, which includes  
8 provision for a 10 year price cap plan. The revenue requirement in this proceeding must  
9 accurately project what revenues are justified based on a historical analysis of revenues  
10 and expenses. The Department found that the test year revenues were overstated by  
11 \$1.17 million, and the Electric Division implemented this rate reduction as of October 18,  
12 2001. Therefore, in order for Operating Revenues for the rate year to reflect all known  
13 and measurable adjustments to the test year Operating Revenues, an adjustment must be  
14 made to reflect the annualized effect of the rate decrease.

15 Q. How did you calculate this adjustment?

16 A. The calculation, which reduces test year Operating Revenues by \$984,963, makes a pro  
17 forma determination of the amount of the decrease in revenues for the test year period  
18 prior to October 18, 2001. It is shown on Schedule MHC – 7-1 (Electric).

19  
20 2. Electric Water Heater Rental Program Revenues

21 Q. Please describe the adjustment to remove Rental Program revenues.

1 A. The Department has previously determined that revenues and expenses associated to the  
2 Rental Program are not includable in revenue requirement for ratesetting purposes. In  
3 order to ensure symmetry between expenses and revenues, an adjustment has been made  
4 to remove the actual test year revenues from the per books determination of Electric  
5 Division Operating Revenues. The adjustment is shown on Schedule MHC-14 (Electric).  
6 There is a subsequent related adjustment to remove test year Rental Program Operating  
7 Expenses. This adjustment decreases Operating Revenues by \$48,333.

8  
9 **C. OPERATING & MAINTENANCE EXPENSE**

10 Q. What is the amount of FG&E's per books test year Operating and Maintenance ("O&M")  
11 Expense?

12 A. In the test year, FG&E incurred \$7,545,924 in O&M Expense, as shown on Schedule  
13 MHC - 3 (Electric).

14  
15 Q. What adjustments were made to O&M Expense?

16 A. I have made pro forma adjustments to the test year amounts for the Electric Division  
17 totaling \$277,080, as shown on Schedule MHC - 7. These adjustments appear in the  
18 following categories of O&M Expense:

- 19 • Other Power Supply  
20 • Payroll  
21 • Medical and Dental

- Pension
- PBOP
- Property and Liability Insurance
- Bad Debts
- Advertising/Promotions
- Gas/Electric Allocations
- USC Service Charge
- Inflation
- Rate Case Expense
- Adjustment for Non Utility Plant
- Payroll Tax
- Property Tax
- Depreciation Expense
- Amortization Expense

I will proceed to review each adjustment individually.

1. Other Power Supply

Q. What adjustment was made to Other Power Supply?

A. This adjustment, as shown on Schedule MHC - 7-2 (Electric), removes from the test year certain power supply expenses that, upon analysis, it was discovered were inadvertently,

1 and incorrectly, charged to the Electric Division's distribution operations. The  
2 adjustment decreases test year O&M expenses by \$32,412.  
3

4 2. Payroll

5 Q. How was the Payroll O&M Expense determined for the Electric Division revenue  
6 requirement?

7 A. First, the test year Payroll amounts for the Electric Division were reviewed. Next, the  
8 test year amounts were examined for whether they would be the same in the rate year, or  
9 whether any known changes would occur to them. We determined that changes would  
10 occur, and therefore a pro forma adjustment was necessary.  
11

12 Q. What adjustment was made to Payroll?

13 A. The Payroll adjustment, as detailed on Schedule MHC - 7-3 (Electric), increases the test  
14 year payroll charged to O&M expense for known and measurable increases that will  
15 occur during 2002 and 2003, up to the midpoint of the rate year. The adjustment  
16 increases test year O&M payroll by \$103,884.  
17

18 Q. Why was this adjustment necessary?

19 A. The adjustment was necessary in order to determine the level of O&M Payroll to be  
20 experienced during the rate year. The adjustment applies the known percent payroll rate  
21 increases for 2002 and 2003, separately by union and non-union categories, to O&M

1 payroll for the test year. Payroll amounts charged to capital and non-utility are removed  
2 and excluded from this adjustment. The percent for union is based on a current contract  
3 that is in effect through May 31, 2005. The annual effective date of union increases is  
4 June 1.

5  
6 Q. With regard to the non-union increases, what is their effective date?

7 A. The non-union increases are effective January 1. Within 30 days of the rate order in this  
8 proceeding, another non-union increase will take effect for 2003. While the adjustment is  
9 an estimate at this time, it will become known during the proceeding and will be in effect  
10 during the rate year.

11  
12 Q. What is the Department's standard for permitting post-test year adjustments?

13 A. Such adjustments are permissible if they are known and measurable and the increases for  
14 both employee groups take effect by the midpoint of the rate year.

15  
16 Q. What is the Department's standard with regard to payroll increases?

17 A. The Department requires companies to demonstrate that the wages and benefits paid to  
18 non-union employees are comparable to the industry peer and required to attract and  
19 maintain qualified employees.

20  
21 Q. Did FG&E perform a compensation study to justify the level of its salaries and wages?



1 A. Yes, it did. FG&E's compensation study was developed with the assistance of the Hay  
2 Group, an internationally recognized expert in the area of compensation. The study of  
3 FG&E's and its affiliates' salaries and benefits was undertaken for the express purpose of  
4 comparing them to appropriate external markets. The Hay Group assisted in evaluating  
5 executive positions, reviewing internal equity of all job evaluations, setting competitive  
6 salary ranges, establishing a program for administering salary increases, recommending  
7 an appropriate and competitive cash incentive plan, recommending changes to our  
8 executive stock option plan, and evaluating and recommending changes to all our non-  
9 cash employee benefit plans.

10  
11 Q. On what sources did Hay rely for its market compensation data?

12 A. Hay used their own extensive database of over 1000 companies that participate in their  
13 annual salary and benefit surveys. In addition, Hay used surveys published by other  
14 nationally known consulting firms to double-check the competitiveness of positions that  
15 they were evaluating for Unitil.

16 Q. Did Hay recommend a competitive position?

17 A. Yes. Hay recommended a policy of paying at the median for base pay, total cash  
18 compensation, and total compensation when compared to all companies in general  
19 industry with less than \$1B in annual revenues. When Hay compared their database of  
20 utility companies to these companies in general industry, they found there was not a  
21 noticeable difference in pay levels. They also concluded that median pay levels in New

1 England are roughly equal to median pay levels nationwide.

2  
3 Q. What was Hay's conclusion about the competitiveness of Unitil's pay structure?

4 A Hay concluded that our cash compensation (base pay plus incentives) was very low when  
5 compared with the markets for utilities, general industry, New England and nationwide.  
6 In most cases, our cash compensation was below the 10<sup>th</sup> percentile (near the bottom of  
7 the market). However, Hay also concluded that our non-cash benefits were very  
8 competitive, driven mainly by the value of our health insurance program.

9  
10 Q. What were Hay's recommendations with regard to the salary ranges for non-union  
11 employee positions?

12 A. Because Hay found that, compared to the market, our salary ranges were very low and  
13 too closely packed together, it recommended salary ranges that would come closer to the  
14 median and that would reward employees when they render valuable service to FG&E  
15 and its customers. Hay also recommended that we consider a broad-based cash incentive  
16 plan to improve the competitiveness of our total cash compensation.

17  
18 Q. What actions has FG&E taken to implement the recommendations of the Hay Group?

19 A. FG&E has been on a planned program of moving salary ranges and base salaries to a  
20 more competitive position since 1998. Faced with the Hay Group Study, our choice in  
21 1998 was to spend a large amount of money all at once to increase pay for many

1 positions, or to phase in higher ranges and base pay over a period of years. FG&E has  
2 been on the latter approach, moving its ranges on a planned basis to get them to the  
3 median by 2004.

4  
5 Q. What impact has this had on salaries and compensation?

6 A. Because of the need to become competitive in order to attract and retain qualified  
7 employees, our base salary increases have been 1% to 2% higher than the average since  
8 1998, in order to bring salaries in line with market. In addition, compensation includes  
9 an annual cash incentive program that provides a target payout of 5% of base salary if  
10 certain goals are met, as set each year by the Board of Directors. These goals include  
11 customer satisfaction, safety and reliability, and cost containment.

12  
13 Q. Is other data used in assessing the competitiveness of FG&E's salaries?

14 A. Yes. FG&E participates in several salary surveys each year to verify that the data from  
15 the Hay Group continues to be a valid measure of median base pay and salary ranges for  
16 the utility industry and in New England. For example, in 2001, FG&E performed a  
17 benchmark analysis of five Professional/Technical and Managerial jobs, which compared  
18 the 2001 FG&E midpoint for those five job grades to the 2001 Hay Survey Median. On  
19 average, FG&E was below the survey median by \$3,623. For two positions  
20 (Administrative Assistant and Director/Distribution Operations Center), the FG&E salary  
21 midpoint was below the survey by \$6,350, and for the remaining three positions, the

1 FG&E midpoint exceeded the median by \$2,727.

2  
3 Q. How are union wages determined?

4 A. Union wage rates are established periodically through the collective bargaining process.  
5 FG&E obtains contracts from as many utilities in New England as possible and calculates  
6 competitive wage rates for each union position. This helps set fair and equitable wage  
7 rate goals in the collective bargaining process to ensure that our union salaries attract and  
8 retain union labor. In 1999, FG&E performed a survey of hourly wage rates for FG&E  
9 compared to 28 other gas and electric utilities in New England and New York. The  
10 results of that survey indicated that the FG&E hourly rates paid union employees were  
11 comparable, and in some cases below, the average hourly rates of FG&E's peers.

12  
13 3. Medical and Dental Insurance

14 Q. Why has the Electric Division made an adjustment to test year levels of Medical and  
15 Dental Insurance?

16 A. This adjustment reflects known and measurable increases that were experienced in 2002.  
17 The adjustment is detailed on Schedule MHC – 7-4 (Electric) and increases test year  
18 O&M expense by \$22,729.

19  
20 Q. What is the cause of the increase in Medical and Dental Insurance costs?

21 A. As reported on the news and evident in every business sector, insurance costs continue to

1 rise. Each of FG&E's insurance providers increased the working rates after the test year.  
2 Therefore, the Medical and Dental Insurance cost for the test year is not reflective of the  
3 actual costs that will be incurred by the Electric Division when rates take effect.  
4

5 Q. What are the known and measurable changes attributable to?

6 A. Medical and Dental Insurance, as included in the Electric Division's revenue  
7 requirement, is based on three factors: the rates effective for 2002, the employee  
8 enrollment in January 2002 and the related employee contributions.  
9

10 Q. Has FG&E taken any steps to contain the increases in its Medical and Dental Insurance  
11 expense?

12 A. Yes. FG&E continually compares the coverage of its insurance programs as compared to  
13 the premiums paid, and the coverage and cost versus the market alternatives. This review  
14 is conducted for FG&E individually and as part of the Unitil System, to ensure that the  
15 value for the cost of insurance is maintained, and that costs are contained as much as  
16 feasible. FG&E joined purchasing power with Unitil and its affiliates in 1995 in order to  
17 obtain more competitive rates from its carriers. In 1999 FG&E eliminated the traditional  
18 indemnity insurance plan as too expensive for non-union employees, and in 2000  
19 negotiated it out of the union contract. To replace the indemnity plan, FG&E adopted a  
20 point of service plan to combine the best features of an HMO and indemnity plan. In  
21 1999, FG&E began to require non-union employee contributions to premium payments,

1 in order to help offset cost increases. Contributions were required of union employees  
2 beginning in 2000. FG&E also instituted an “opt-out” program that permits and  
3 encourages employees to become insured elsewhere (e.g. spouse employer). Finally, on  
4 January 1, 2001, the Company converted from a fully-insured plan to a self-insured plan  
5 to save money previously paid to insurance companies for margin, profit, taxes,  
6 administration and retention. As a result of this last change, the total test year insurance  
7 increase was reduced from an increase of about 41% to one of approximately 16%.

8  
9 Q. Is it necessary to provide medical and dental insurance to employees?

10 A. Yes, it is. Insurance coverage is important to our employees and their families. It is also  
11 an important piece of employee compensation and benefits. Our experience has  
12 demonstrated that quality medical and dental insurance helps retain good employees and  
13 encourages longevity with the Company. Therefore, medical and dental insurance  
14 programs are offered all employees of the Company, from field personnel to executives.

15  
16 Q. How is the adjustment to test year Medical and Dental Insurance expense calculated?

17 A. As the cost of Medical and Dental Insurance is initially borne by FG&E as a common  
18 expense to both the Gas Division and the Electric Division, the adjustment calculates the  
19 allocated cost attributable to the Electric Division, as shown on Schedule MHC - 7-4  
20 (Electric), line 9. The Medical and Dental Insurance expense allocated to the Electric  
21 Division is then appropriately reduced by the amount chargeable to capital, as shown on

1 Schedule MHC - 7-4 (Electric), line 10. The resulting amount is the O&M Expense.

2 Finally, the test year Medical and Dental Insurance expense is subtracted from the O&M  
3 expense, to derive the pro forma adjustment of \$22,729. See Schedule MHC - 7-4  
4 (Electric), line 13.

5  
6 4. Pension

7 Q. What is the Department's standard for treatment of Pension contributions in revenue  
8 requirement?

9 A. The Department requires that a utility must be making cash contributions to the pension  
10 funds, irregardless of the accounting calculation of pensions, in order to include pensions  
11 in the cost of service.

12  
13 Q. Please explain the Pension Adjustment.

14 A. The pension funds of the Company are fortunate to be in an over-funded position relative  
15 to future pension liabilities. This is a result of successful fund investments in recent  
16 years.

17  
18 Q. Is FG&E currently required to make cash contributions to the Pension Plan?

19 A. No, it is not. Therefore, it is appropriate to remove from the cost of service the per books  
20 amount recorded in the test year attributable to Electric Division pension income.

21

1 Q. How much is the adjustment increasing test year expense?

2 A. As shown on Schedule MHC - 7-5 (Electric), the adjustment is increasing test year  
3 expenses in the amount of \$105,778.  
4

5 5. Post-employment Benefits Other Than Pension

6 Q. What kinds of Post-employment Benefits Other than Pension (PBOP) does FG&E incur?

7 A. FG&E incurs two types of PBOP expense. One is the accrual for post-employment  
8 benefits related to current employees, which expense is the actuarially determined-FAS  
9 106 costs. Because the FAS 106-portion relates to current employees, part of this  
10 actuarial cost is charged to capital accounts, in order to appropriately reflect the profile of  
11 work activities engaged in by current employees. The other PBOP expense is the cost  
12 incurred by FG&E on an annual basis to fund the Unitil Retiree Trust ("URT"), from  
13 which Unitil pays retirement benefits to the retired employees of FG&E.

14 Q. Please explain the PBOP adjustment.

15 A. As detailed on Schedule MHC- 7-6 (Electric), the pro forma adjustment increases PBOP  
16 O&M expense by \$69,730 for costs to be experienced in 2002. The adjustment calculates  
17 the cost of both the FAS 106 and URT portions allocated to the Electric Division, as  
18 shown on Schedule MHC – 6 (Electric), lines 2 and 3 of the schedule.  
19

20 Q. How do you make an adjustment for the FAS 106 expense that should be charged to  
21 capital?



1 A. The allocated Electric Division FAS 106 expense is reduced by the amount chargeable to  
2 capital, as shown on Schedule MHC – 7-6 (Electric), line 4.

3  
4 Q. What is the total pro forma adjustment to test year O&M Expense?

5 A. Once the test year PBOP expense is subtracted from the total of the known FAX 106 and  
6 URT expenses for 2002, the total pro forma adjustment is \$69,730, as shown on Schedule  
7 MHC – 7-6 (Electric), line 7.

8  
9 6. Property and Liability Insurance

10 Q. Please describe the Electric Division's Property and Liability Insurance coverage.

11 A. Property and Liability Insurance coverage includes a number of types of insurance that  
12 provide protection from casualty and loss, and other damages that FG&E may incur in  
13 the conduct of its business. FG&E's insurance program includes both premium-based  
14 and self-insured coverages, in order to obtain the widest portfolio of prudent insurance  
15 coverage at the most reasonable cost.

16  
17 Q. Why are you proposing an adjustment to test year Property and Liability Insurance  
18 expense?

19 A. An adjustment to test year Property and Liability Insurance expense levels is necessary to  
20 reflect known and measurable changes being experienced in 2002. In addition, the per

books Property and Liability Insurance level must be adjusted to reflect the amount to be charged to capital for ratemaking purposes.

Q. How is the pro forma adjustment calculated?

A. This adjustment is detailed on Schedule MHC - 7-7 (Electric). Once again, for economies, FG&E acquires a portion of its insurance portfolio, the premium-based coverage, as an expense common to both the Gas Division and the Electric Division, or in other words, on a total-company basis. Therefore, the first step of the adjustment calculates the cost appropriately allocated to the Electric Division, as shown on Schedule MHC-7-7 (Electric), lines 5 and 11. The self-insured general liability claims, however, are acquired separately and are therefore identified separately by the Electric Division as indicated on Schedule MHC – 7-7, line 12. At this point, the total cost for the Electric Division is further reduced by the amount appropriately chargeable to capital. Schedule MHC – 7-7, line 14. The final pro forma adjustment increases test year Property and Liability Insurance expense by \$111,138.

7. Bad Debt

Q. Did FG&E adjust the test year Bad Debts level for ratemaking purposes?

A. Yes. In doing so, as shown on Schedule MHC – 7-8 (Electric), FG&E computed its Bad Debt in accordance with the Department's standards.

1 Q. Please explain.

2 A. Amounts were totaled over the past three years, including the test year, of actual net  
3 write-offs and revenues. The years used were 1999, 2000, and 2001, as shown on  
4 Schedule MHC – 7-8 (Electric), lines 1-3. The Bad Debt ratio was determined by  
5 dividing total net write-offs by total electric operating revenue, as shown on Schedule  
6 MHC – 7-8 (Electric), line 5. Test year electric operating revenue was then multiplied by  
7 the Bad Debt ratio to derive the Bad Debt expense for ratemaking purposes, as shown on  
8 Schedule MHC – 7-8 (Electric), line 9. This amount was further reduced by the percent  
9 of expense attributable to, and that FG&E proposes to recover through, Standard Offer  
10 Service (“SOS”) and Default Service (“DS”) to derive the bad debt expense for the  
11 purpose of distribution base rates.

12

13 Q. How did you determine the percent of Bad Debt expense attributable to SOS and DS?

14 A. This percent is based on the ratio of net write-offs related to SOS and DS to total net  
15 write-offs during the test year.

16

17 Q. How are Bad Debts collected from FG&E’s customers?

18 A. Total Bad Debts expense is currently collected as a component of FG&E electric base  
19 distribution rates. As indicated above, FG&E is proposing to allocate the recovery of  
20 Bad Debts between base distribution rates and the SOS and DS.

21

1 Q. How do you propose to recover the SOS and DS portions within their respective cost  
2 recovery mechanisms?

3 A. Since FG&E customer billing system is capable of tracking account write-offs by specific  
4 billing component, FG&E proposes that Bad Debts be allocated to SOS and DS, based on  
5 the actual amount of customer account write-offs recorded and tracked for the SOS and  
6 DS billing components as a ratio of the total amounts of write-offs for the Electric  
7 Division. In this way, the SOS and DS component of Bad Debts would vary based on the  
8 actual write-offs for the SOS and DS billing components during the costing period and  
9 would more accurately reflect the actual cost of providing these services.

10  
11 Q. What is the final Bad Debts pro forma adjustment?

12 A. After subtracting the test year level of Bad Debts expense, a pro forma decrease of  
13 \$342,823 results. See Schedule MHC – 7-8 (Electric).

14 8. Advertising/Promotions

15 Q. Does the Department permit the recovery of Advertising/Promotions Expense in  
16 determining a company's cost of service?

17 A. Yes. The Department precedent allows for recovery of informational advertising and  
18 safety-related advertising as well as promotional advertising targeted to direct  
19 competition with unregulated fuels (i.e. oil). All other promotional or image-related  
20 advertising or associated incentives are not allowed in cost of service for ratemaking  
21 purposes.

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Q. What adjustment has been made to test year Advertising/Promotions expense?

A. The adjustment removes test year expenses for image and promotional advertising. As shown on Schedule MHC- 7-9 (Electric), the adjustment reduces test year Advertising/Promotions expense by \$10,786.

9. Gas/Electric Allocations

Q. In general, what is a “Common Cost?”

A. Common costs are costs that are incurred jointly for two or more types of utility operations and are subsequently allocated to each such operation, for example on the basis of the relative percentages of utility plant or revenue.

Q. What was the basis for allocating test year costs common to both the Gas Division and the Electric Division?

A. The initial basis for allocating test year costs common to the Gas Division and the Electric Division was a study that was conducted in 1978. Because of the changes in the gas and electric industries, including restructuring, the merger with Unitil Corporation in 1992 and the sheer age of the prior study, FG&E concluded that a new study was required to ensure the validity of the allocation methodology. It is attached as Exhibit FGE-MHC - 6 (Electric), FG&E Gas and Electric Common Cost Allocation Study (“G/E Split Study”).

1 Q. Please describe the results of the G/E Split Study.

2 A. The G/E Split Study results were very similar to the results of the 1978 Study and  
3 recommended that, on an overall basis, 35.75% of the common costs should have been  
4 allocated to the Gas Division and 64.25% should have been allocated to the Electric  
5 Division. By comparison, the 1978 Study, used to allocate common costs during the test  
6 year, resulted in 35.97% of the common costs being assigned to the Gas Division and  
7 64.03% assigned to the Electric Division.

8

9 Q. Please explain how the G/E Split Study results have been used in the determination of the  
10 Gas Division cost of service.

11 A. On Schedule MHC – 7-10 (Electric), the booked amounts for 2001 common costs have  
12 been pro formed using the various allocation factors for the Electric Division from the  
13 G/E Split Study.

14

15 Q. Have these G/E Split Study factors been used elsewhere in the determination of the  
16 Electric Division revenue requirements?

17 A. Yes. The G/E Split Study factors are present on those schedules for normalizing  
18 adjustments related to specific common costs.

19

20 Q. Please describe the adjustment for Gas/Electric Allocations.

1 A. This adjustment, detailed on Schedule MHC – 7-10 (Electric), reflects the allocation  
2 methods for common Gas/Electric expenses as recommended in the G/E Split Study. See  
3 Exh. FGE-MHC - 6 (Electric). This adjustment relates to both O&M Expense and Taxes  
4 Other Than Income.

5  
6 Q. Please describe the schedule that provides for the allocations adjustment.

7 A. Schedule MHC – 7-10 (Electric) is in the same format as the summary schedule of the  
8 G/E Split Study, with test year actual expenses grouped by the recommended allocation  
9 factors. These factors are Plant, Labor, Customers, Number of Bills and Net Revenue.  
10 The adjustment is simply the computation of the change in amounts of allocated test year  
11 expenses for each of the Gas and Electric Divisions as a result of applying the  
12 recommended allocation methods.

13  
14 Q. Has any allocation been made to reflect changes in overall test year levels?

15 A. No. The allocation factor groups of Plant, Labor and Net Revenue have been reduced by  
16 the test year amounts of those expenses that have been adjusted separately in other  
17 schedules.

18  
19 Q. What is the impact of the adjustment?

20 A. The adjustment increases the level of remaining test year allocated O&M expense to the  
21 Electric Division by \$53,140 and decreases the test year level of allocated taxes other

1 than income taxes by \$7,549. See Schedule MHC – 7-10 (Electric), page 2, lines 32 and  
2 33.

3  
4 10. USC Service Charge

5 Q. Before you begin your discussion of this adjustment, did you include in FG&E's revenue  
6 requirement a test year level of allocated expenses for USC, or service company, cost  
7 charged to the Electric Division?

8 A. Yes. The Electric Division's cost of service includes service company costs. The  
9 Department directed FG&E to complete a year-end audit so that actual test year amounts  
10 of allocated charges are available for the Department's review.

11 Q. What do the service company costs include and what profit is attached to those charges?

12 A. The service company costs include allocated overhead and wages expenses for the  
13 service company operations. No profit is made by Unitil on service company charges to  
14 the retail distribution affiliates. Pursuant to SEC requirements, all USC charges are billed  
15 to FG&E at the same cost incurred by the service company in rendering the service.  
16

17 Q. Did FG&E conduct the year-end audit of the actual test year amounts of allocated charges  
18 to the Electric Division by the service company and would you explain the nature of  
19 those expenses?

20 A. Yes. As a result of the audit, the test year service company charges were examined.

21 During the test-year, FGE (both Gas and Electric Divisions combined) incurred



1 approximately 40% of the total service company expenses. Exhibit FG&E-MHC - 5, page  
2 3 (Electric), shows the total service company expenses for the test-year, by expense type.  
3 Exhibit FG&E-MHC - 5 (Electric), page 4, shows the portion of the service company  
4 expenses incurred by FG&E by component. The analysis provides a requisite break-out  
5 of costs allocated between the Gas Division and the Electric Division  
6

7 Q. Is the allocation of 40% of the total service company expenses to FG&E reasonable?

8 A. Yes, I believe it is. USC charges to its affiliates “at cost” for shared services. In general,  
9 the service provided by USC to its utility affiliates in New Hampshire and Massachusetts  
10 support the revenues earned by those companies and the customers served in those states.  
11 Approximately 60% of Until’s total utility revenues are earned by the New Hampshire  
12 utilities and approximately 40% are earned by FG&E in Massachusetts. The same  
13 relationship holds true for number of customers: approximately 60% are New  
14 Hampshire-based customers and approximately 40% are FG&E’s customers. This causal  
15 relationship between USC charges to affiliates and each utility’s revenues and customers  
16 demonstrates the overall reasonableness of the allocation of the cost of USC shared  
17 services.  
18

19 Q. How is the USC billing accomplished?

20 A. USC uses a Time & Billing System, to record and determine Labor and Overhead  
21 expenses of USC that are attributed to FG&E. The portion of Labor billed to FG&E is

1 determined based on employee monthly time sheets. USC Overheads are generally  
2 allocated to FG&E based on the percent of Labor billed to FG&E. Each month, USC  
3 renders an invoice for payment to FG&E.  
4

5 Q. What information does the monthly invoice from the service company to FG&E contain?

6 A. The monthly invoice lists hours and dollars associated with the services provided by each  
7 USC functional area, as well as, Direct Charges to FG&E. Direct Charges represent  
8 expenses paid by USC that have been specifically identified and charged directly to an  
9 affiliate; therefore, the Direct Charge line item on the service bill enables USC to bill  
10 costs incurred solely for the benefit of a particular affiliate directly to the appropriate  
11 affiliate. A supporting schedule then details the charges for each functional category by  
12 department, providing a further breakout of charges between Labor and Overhead. The  
13 final page of the invoice summarizes how the service company charges are recorded in  
14 FG&E's General Ledger.  
15

16 Q. Did the service company charge to FG&E include any Securities and Exchange  
17 Commission audit expense in the test year?

18 A. No, it did not. I will note that in D.T.E. 98-51, the Department directed FG&E to ensure  
19 that any future SEC audit expenses were charged to a separate job number for direct  
20 tracking for ratemaking purposes. However, the SEC has not audited Unitil since 1997.  
21 In the event of a future SEC audit, FG&E will establish a unique job order number to

1 track and accumulate the expenses associated with the audit. This tracking and  
2 accumulation will ensure that the SEC audit expenses are properly considered for  
3 ratemaking purposes.  
4

5 Q. Are all the overhead and general costs associated with the Unitil Service Corp. operations  
6 passed through to the Electric Division pursuant to the allocation methodology?

7 A. The manner in which service company costs are allocated and charged to FG&E has been  
8 approved by the Securities and Exchange Commission under the provisions of that  
9 agency's regulatory oversight pursuant to the Public Utility Holding Company Act.  
10 However, for Massachusetts ratemaking purposes, FG&E has reviewed the particulars of  
11 the service company charges to ensure that the base level of service company costs  
12 included in FG&E's operating expenses includes only amounts that comport with  
13 Department precedent for inclusion in rates.  
14

15 Q. What was the result of that review?

16 A. It was determined that donations, certain membership fees, market development costs and  
17 advertising expense likely would not comport with Department precedent for rate  
18 recovery. Therefore, FG&E determined the total amount of these charges allocated to  
19 FG&E, and then to the Electric Division, and reduced the Electric Division's test year  
20 Operating Expense by that amount, or \$22,749. See Schedule MHC – 7-11 (Electric).  
21

11. Inflation

Q. Why does FG&E propose an Inflation Allowance?

A. FG&E is proposing an inflation allowance, consistent with Massachusetts law, to recognize the deteriorating impact of inflation over time on a regulated company's earnings, even when rates are set initially at a just and reasonable level. The inflation adjustment recognizes that known inflationary pressures, not subject to the control of FG&E, tend to affect FG&E's operating expenses in a manner that can be reasonably measured. Under Department precedent, the adjustment does not include an allowance for those expenses that can be adjusted separately and extends only to the midpoint of the rate year. In this particular case, adjusting the test year revenue requirements level to reflect the impact of inflation over time is especially important given FG&E's proposed PBR Plan.

Q. Please describe the adjustment for Inflation.

A. An inflation allowance has been applied to test year residual O&M Expenses, as shown on Schedule MHC – 7-12 (Electric). The inflation allowance has been calculated based on the projected inflation rate of 2.54% from the midpoint of the test year to the midpoint of the rate year. See Schedule MHC – 7-12 (Electric), page 1. In order to determine the level of test year residual O&M expense, I reduced test year O&M expenses by (1) purchased power, (2) expenses that have been adjusted separately and (3) expenses that are not directly impacted by general inflation. See also, Schedule MHC – 7-12, page 4

1 (residual O&M Expense 1997 through 2001). The inflation rate was separately  
2 calculated, as measured by the projected growth in the Gross Domestic Product Implicit  
3 Price Deflator (GDPIPD) from the midpoint of the test year to the midpoint of the rate  
4 year. See Schedule MHC – 7-12 (Electric), page 2. To show the reasonableness of this  
5 tabulation, I have compared it with the published history of the GDPIPD on a quarterly  
6 basis from the first quarter of 1996 to the projected fourth quarter of 2003. The inflation  
7 rate will be revised before the end of the proceeding to reflect the most recent GDPIPD  
8 data.

9  
10 Q. What Inflation allowance was calculated?

11 A. The calculation produces an inflation allowance to be added to the test year revenue  
12 requirement of \$127,221. Schedule MHC – 7-12 (Electric), page 1 of 4, line 18.

13  
14 Q. Are there expenses usually considered residual O&M, otherwise included in the inflation  
15 allowance, that you have omitted from your calculation of residual O&M Expenses  
16 because of announced cost changes?

17 A. Yes. Quite recently, an increase in postal rates was approved for the United States Postal  
18 Service. FG&E did not have sufficient time before the filing of this case to calculate in  
19 detail the effect of the rate increases. This expense is directly related to FG&E's service  
20 to customers (e.g. billing) and should be included as a known and measurable change to  
21 its operating expense. FG&E will seek to include this adjustment as soon as the impact is

1           calculated. Postage expense has been eliminated from the calculation of residual O&M  
2           Expense as used in the Inflation adjustment shown on Schedule MHC – 7-12 (Electric),  
3           page 4, line 9.

4  
5                   12.   Rate Case Expense

6   Q.    Please describe the Department's precedent with regard to recovery of rate case expenses.

7   A.    The Department permits a company to amortize the reasonable costs of rate case  
8           proceedings based on the average of the periods between a company's last four rate  
9           cases.

10  
11   Q.   In FG&E's last base rate proceeding, did the Department direct FG&E to do anything in  
12           particular with regard to its justification of rate case expenses?

13   A.   Yes. The Department reminded FG&E that it must provide adequate justification for  
14           each instance when it chooses to forego the competitive bidding process in the process of  
15           securing outside services for rate case support.

16  
17   Q..   Did FG&E contract for outside services in order to prepare this rate request?

18   A.   Yes. FG&E contracted with various non-affiliate consultants for outside services with  
19           regard to: the Depreciation Study, developing a PBR Plan, determining a reasonable  
20           market Cost of Common Equity, performing Cost of Service Studies and reviewing and

1 reestablishing the appropriate Allocation of Common Costs between FG&E Gas and  
2 Electric Divisions, and for acquiring Legal Services.

3  
4 Q. Did FG&E select these consultants as a result of a competitive bidding process?

5 A. With regard to the Depreciation Study, FG&E employed a competitive bidding process in  
6 order to select the consultant, James H. Aikman. In addition, with regard to FG&E's  
7 PBR, filed April 16, 2002, FG&E competitively bid, and selected from that competitive  
8 process, the services of Russell Feingold and Navigant Consulting. All other consultants  
9 for the rate proceeding were selected based on criteria other than a competitive bidding  
10 process.

11  
12 Q. In light of the Department's request, please justify FG&E's decision not to rely on  
13 competitive bidding in selecting its additional rate case consultants.

14 A. FG&E reviewed the services required in order to bring together all the components of  
15 the rate request and decided that additional criteria weighted more heavily than the  
16 benefits of relying solely upon competitive bidding, both to FG&E and to customers.

17  
18 Q. Please begin with legal services.

19 A. With respect to legal services, FG&E did not competitively bid these services for the  
20 purposes of these rate cases: it has a longstanding working relationship with its law firm,  
21 underscored by the firm's in-depth understanding of FG&E and its combined operations

1 as well as the firm's expertise in regulatory matters affecting the energy and the utility  
2 industry. The firm has represented both the Gas and Electric Divisions through difficult  
3 and complex industry restructurings, and most recently filed the PBR proposed to be  
4 consolidated with these rate proceedings. Such expertise will facilitate discovery and  
5 reduce hearing time, without incurring additional expense of the lead time required to  
6 train another legal team.

7  
8 Q. And with Cost of Capital and Rate Design?

9 A. Similarly, FG&E did not competitively bid the outside consulting services such as Cost  
10 of Capital, Rate Design, etc. FG&E has developed, over many years, working  
11 relationships with MAC and with FINANCO. These consultants' familiarity with FG&E,  
12 especially as it pertains to rate case issues, reduces costs that otherwise would be incurred  
13 in learning and understanding the combined and separate operations of the Gas and  
14 Electric Divisions. Equally important in this decision was the fact that these consultants  
15 had performed similar studies in prior rate proceedings and already possessed much of  
16 the historical data needed to perform such studies. Having this information on hand  
17 permitted them to produce the studies more efficiently and at less cost than consultants  
18 unfamiliar with the Company.

19  
20 Q. Was FG&E's decision not to competitively bid these services reasonable in light of the  
21 reasons you have provided?



1 A. Yes. In these instances, based on these longstanding professional and working  
2 relationships, FG&E's decision to forgo the competitive bid process was appropriate and  
3 reasonable. Based on services rendered and the costs expected to be incurred, I believe –  
4 even without the competitive bidding process -- that the cost of the services is market-  
5 based.

6  
7 Q. Has the Department ever been concerned about the reliability of FG&E's rate case  
8 estimates?

9 A. Yes, the Department did express this concern as a part of D.T.E. 98-51.  
10

11 Q. How has FG&E attempted to remedy this concern?

12 A. The Rate Case Expense schedule, Schedule MHC – 7-13 (Electric), was prepared after  
13 discussions with the various functional managers who are responsible for the preparation  
14 of the rate request. These managers also have budget responsibility for contacting  
15 consultants and for making arrangements for services where FG&E does not possess “in-  
16 house” expertise. These managers are aware of the costs incurred in prior regulatory  
17 proceedings as well and are able to make an assessment of costs that might be incurred in  
18 this proceeding. Further, these managers had detailed conversations with the consultants  
19 themselves in order to estimate reliably the expected Rate Case Expense.  
20

1 Q. Could additional expenditures significantly increase the submitted estimate for Rate Case  
2 Expenses?

3 A. To the extent practicable, FG&E has taken all reasonable steps to identify all costs that  
4 have been or may be incurred in this proceeding. However, as the Department knows,  
5 because of the breadth of investigation, factors totally unanticipated during the  
6 preparation phase of a rate case may become plainly apparent and take on an undue  
7 complexity during the proceeding itself. Therefore, as the proceeding evolves, FG&E  
8 will attempt in good faith to update costs on a timely basis. Hopefully this approach will  
9 satisfy the Department's directive and meet the known and measurable standard to which  
10 the Department adheres.

11  
12 Q. Is there anything else you would like to add?

13 A. Yes. The Department should be assured that, as part of FG&E's review process, every  
14 facet of the rate proceeding is tracked from invoice, each of which is reviewed for  
15 accuracy, reasonableness and completeness, to any required follow-up for additional  
16 detail or documentation, to electronic tracking by spreadsheet, that identifies when each  
17 invoice is approved for payment and charged to the appropriate deferred account on the  
18 general ledger. This tracking system will be regularly monitored to ensure adequacy of  
19 the supporting documentation.

20  
21 Q. How have you estimated the costs expected to be incurred to present this rate request?

1 A. As stated, the costs shown on Schedule MHC – 7-13 (Electric) have been estimated in  
2 good faith based on projections by management, in consultation with the various  
3 consultants and legal counsel assisting in this presentation. The costs have then been  
4 amortized over 7 years, based on Department precedent. The costs will be updated on  
5 an actual and timely basis before the end of the proceeding.

6  
7 Q. Please describe this adjustment.

8 A. The pro forma adjustment increases test year rate case expense by \$107,393.  
9

10 13. Rental Program

11 Q. Why have O&M Expenses been adjusted to remove the costs associated with FG&E's  
12 Rental Program?

13 A. As stated, the Department no longer permits FG&E to include the costs of providing a  
14 Rental Program to customers as part of its above-the-line revenue requirement for  
15 ratemaking purposes. Therefore, an adjustment has been made to remove the O&M  
16 expenses related to the Rental Program from the test year revenue requirement. This  
17 adjustment removes \$15,163 from test year operating expenses. Schedule MHC – 7-14  
18 (Electric).

19  
20 Q. What was the Department's directive related to the water heater program in D.T.E.  
21 98-51?

1 A. FG&E is required to provide a separate water heater allocator for Account 901, 903,  
2 904, 905, 907 to 910, 920 to 922, 924, 926, 928, 930, and 935 because these accounts  
3 contain costs that are incurred for both utility and non-utility customers.

4 Accordingly, an allocation study was performed at the end of the test year.  
5

6 Q. How does the Rental Program operate as relevant to a fully allocated cost of service?

7 A. From an administrative standpoint, the Rental Program functions like that of  
8 Massachusetts Electric Company (MECo). FG&E contracts with outside vendors to  
9 maintain the inventory of water heater tanks, to service the tanks, and to install  
10 replacements. FG&E's customer service handles inquiries for the program, signs  
11 leases, maintains a customer list and refers and supervises the outside vendors.  
12

13 Q. Does MECo have an approved allocation methodology that it employs for ratemaking  
14 purposes?

15 A. Yes. Because of the similarities and for administrative ease, FG&E adopted MECo's  
16 allocation method. See, Massachusetts Electric Company, D.P.U. 89-194/195 at 49.  
17

18 Q. Please summarize the allocation method approved by the Department for MECo.

19 A. MECo uses a revenue allocator with the exception of Account 904, Uncollectible  
20 Expense, which is a direct charge. However, there is no precedent for the allocation of  
21 costs for Account 924, Property Insurance, so gross plant was used to allocate Property

1 Insurance between the utility and the Rental Program.

2  
3 Q. How was this adjustment accomplished?

4 A. This adjustment performs two actions to exclude the Program from cost of service. .

5 First, it removes the test year direct O&M expenses charged to the Program in the  
6 amount of \$13,866. Schedule MHC – 7-14 (Electric), after line 8. Second, it  
7 removes allocated costs on a pro forma basis in the amount of \$1,297. Schedule  
8 MHC – 7-14 (Electric), line 21.

9  
10 **D. TAXES OTHER THAN INCOME**

11 1. Payroll Taxes

12 Q. Mr. Collin, please describe the adjustment for payroll taxes.

13 A. The adjustment is detailed on Schedule MHC – 7-15 (Electric). This adjustment  
14 calculates the increase in FICA and Medicare payroll taxes related to the proformed  
15 increase in payroll on Schedule MHC –7-3 (Electric).

16  
17 Q. What is the total amount of the adjustment?

18 A. The adjustment increases test year payroll taxes by \$7,668.

19  
20 Q. How is the increase in test year payroll taxes calculated?

1 A. Test year payroll data from Schedule MHC- 7-3 (Electric) is presented on Schedule  
2 MHC – 7-15 (Electric) to adjust total payroll less non-utility amounts for the payroll  
3 rate increases of 2002 and 2003. Schedule MHC – 7-15 (Electric), lines 8-10. FICA  
4 tax is calculated on the total Electric utility payroll at 6.2% (Schedule MHC – 7-15  
5 (Electric), line 12) and is then reduced by the Electric Division’s portion of excess  
6 FICA amount related to employee payroll that exceeds the FICA maximum payroll  
7 (Schedule MHC – 7-15 (Electric), line 13), to derive Total Electric FICA, on line 14.  
8 Next, Medicare tax is calculated on the proformed total Electric utility payroll at  
9 1.45%. Schedule MHC – 7-15 (Electric), line 15. FICA and Medicare taxes are  
10 totaled and reduced by amounts chargeable to capital to derive the tax expense related  
11 to proformed total utility payroll. Schedule MHC – 7-15 (Electric), line 17, 18. This  
12 amount is compared to test year FICA and Medicare tax expense to derive the  
13 increase of \$7,668 related to the proformed increase in payroll. See Schedule MHC –  
14 7-15 (Electric), line 20.

15  
16 2. Property Taxes

17 Q. Have test year Property Taxes been adjusted?

18 A. Yes, as detailed on Schedule MHC – 7-16 (Electric).

19  
20 Q. Have you determined what the level of property tax will be?

1 A. Schedule MHC – 7-16 (Electric) lists the annualized amounts of the most recent  
2 property tax bills received from municipalities. I have included the bills received  
3 through March 22, 2002 from the municipalities as Exhibit FGE-MHC - 2G  
4 (Electric).

5  
6 Q. What is the next step?

7 A. A capitalized amount is then subtracted to determine the amount charged to expense.  
8 The adjustment then calculates the expense related to the Electric Division on an  
9 allocated basis, as shown on Schedule MHC – 7-16 (Electric), line 13. As previously  
10 described, the derivation of the allocation is the G/E Split Study that was performed  
11 on all common costs for the test year.

12  
13 Q. The adjustment occurs when the expense related to the Electric Division is compared  
14 to the test year property tax expense?

15 A. That is correct. This amount is compared to the test year property tax expense to  
16 derive the increase of \$128,062. Schedule MHC – 7-16 (Electric). As appropriate,  
17 this adjustment to property taxes will be updated during the proceeding for additional  
18 tax bills received.

19  
20 **E. DEPRECIATION EXPENSE**

21 Q. Mr. Collin, have you proposed an adjustment to depreciation expense?

1 A. Yes. The Depreciation adjustment, detailed on Schedule MHC – 7-17 (Electric),  
2 increases the test year Depreciation Expense by \$1,127,905 for the new asset depreciation  
3 rates proposed by James H. Aikman. As shown on Schedule MHC – 7-17 (Electric), the  
4 rates justified by the Depreciation Study have been applied to the test year-end  
5 depreciable plant balances to derive the annualized depreciation expense. The  
6 depreciable plant balances appropriately exclude amounts related to other power  
7 generation, stranded assets/jointly-owned units and the Rental Program and include  
8 amounts related to common plant balances allocated to the Electric Division.  
9

10 **F. AMORTIZATION EXPENSE**

11 Q. What adjustments have you made to Amortization Expense?

12 A. I have examined the various amortizations being recorded on the accounting records  
13 during the test year for the Electric Division and have calculated the adjustment required  
14 to reflect the effect of changes during the test year and anticipated prior to the effective  
15 date of rates from this proceeding. These amortizations are shown on Schedule MHC –  
16 7-18 (Electric). The adjustment increases test year amortization expense by \$190,072.  
17

18 **G. INCOME TAXES**

19 Q. Have you provided the Department with any description of adjustments to per books  
20 operating results relative to Income Taxes?



1 A. Schedule MHC-5 (Electric) shows the computation of Massachusetts Franchise Taxes  
2 and Federal Income Taxes, calculated using the rate base and rate of return  
3 methodology in accordance with the Department standard. In addition, the  
4 computation provides for the amortization of the net regulatory asset resulting from  
5 the application of Statement of Financial Accounting Standards (SFAS) 109,  
6 “Accounting for Income Taxes,” relating to both Federal income and Massachusetts  
7 Franchise Tax. In D.T.E. 99-118, the Department authorized the recovery of the FAS  
8 109 net regulatory asset related to FG&E’s electric operations over a 20-year period.  
9 The amount of such authorization related to transmission/distribution operations was  
10 \$260,913 and is shown on Schedule MHC – 5 (Electric), line 13.

11 Q. What is Financial Accounting Standard 109?

12 A. SFAS 109 required companies, effective December 31, 1992, to record on their financial  
13 statements all future income tax liabilities. Because utilities subject to cost of service  
14 ratemaking are allowed to recover income tax liability in rates, they were allowed to  
15 record an offsetting net regulatory asset representing the future recovery of the income  
16 tax liability in rates. FG&E has been recording the net regulatory asset and future tax  
17 liability related to Federal and State income taxes since December 31, 1992

18  
19 **H. RATE OF RETURN**

20 Q. Please describe how you determined FG&E's rate of return for ratemaking purposes?

1 A. Schedule MHC – 12 (Electric) shows FG&E's test year-end capital structure and costs of  
2 common stock equity, preferred equity and long-term debt as adjusted. I started the  
3 calculation with the test year-end balances of capital components. I then adjusted the  
4 long-term debt amount for the sinking fund payment of three million dollars during in  
5 March 2002. The cost of long-term debt has been appropriately updated to reflect the  
6 sinking fund payment. The calculation of the overall cost rates of preferred stock and  
7 long-term debt is based on the applicable cost rates for FG&E's individual preferred stock  
8 and long-term debt issuances. I have used the embedded effective cost of capital for  
9 preferred stock and long-term debt, calculated as 6.81% and 7.55%, respectively. These  
10 costs are shown on Schedule MHC – 12 (Electric). I have used 11.5% for the cost of  
11 common equity, which is the cost of common equity determined by Dr. Hadaway as the  
12 appropriate market cost of common equity for ratemaking purposes. The resulting  
13 weighted cost of capital is 9.09%.

14  
15 Q. What is the resulting capital structure for ratesetting purposes?

16 A. As shown on Schedule MHC – 12 (Electric), the resulting capital structure consists of:  
17 39.3% common equity, 2.4% preferred stock equity and 58.3% long-term debt.

18  
19 Q. Please explain the derivation of the cost of long-term debt.

20 A. The calculation of the cost of long-term debt for FG&E is detailed on Schedule MHC –12  
21 (Electric). I have calculated the weighted cost rate of 7.55% by dividing the total annual

1 cost of the long-term debt by the outstanding long-term debt amount. The total annual  
2 cost consists of the annual amortization amount of debt issuance costs and annual interest  
3 charges.

4  
5 Q. Please explain the derivation of the cost of preferred stock equity.

6 A. The calculation of the preferred stock equity cost rate for FG&E is detailed on Schedule  
7 MHC – 12 (Electric). I have calculated the weighted cost rate of 6.81%. The  
8 methodology utilized to calculate the cost is the same as that used to calculate the cost of  
9 long-term debt except the annual cost associated with preferred stock is stated as an  
10 annual dividend rather than an annual interest cost as is the case with long-term debt.

11  
12 Q. Please summarize the total rate of return for the Electric Division.

13 A. The resulting weighted cost of capital is 9.09%, as shown on Schedule MHC – 12  
14 (Electric). I have applied this rate to the total electric rate base of \$45,064,765 and by  
15 function as shown on Schedule MHC - 3 (Electric). The return on total rate base is  
16 calculated therefrom. The result is a total return on rate base of \$4,096,387 as shown on  
17 Schedule MHC - 2.

18  
19 **VII. CONCLUSION**

20 Q. Does this conclude your testimony?

21 A. Yes, it does.